

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the instant application:

1. (Currently Amended) A method for computing within a grid environment comprising the steps of:

determining a statistically relevant number of ghost agents in said grid environment;

modeling delays associated with the statistically relevant number of ghost agents executing ghost software objects that consume limited computing resources in the grid environment;

identifying a host software object operating in one grid of said grid environment;

creating a ghost software object within the one grid;

associating said ghost software object with said host software object, wherein said ghost software object is configured to replicate and record at least one action of said host software object;

identifying passive and active interactions between said ghost software object and said host software object that consume the limited computing resources and induce the delays;

triggering either a transfer of the ghost software object or a cloning of the ghost software object in view of the passive and active interactions,

moving said host software object from the one grid to another grid within said grid environment; and,

in response to said moving of said host software object, moving said associated ghost software object from said one grid to said another grid.

2. (Currently Amended) The method of claim 1, further comprising changing execution details of an instruction set described within individual ghost actions performed by the ghost software object, wherein said host software object comprises a user object.

3. (Previously Presented) The method of claim 2, wherein said user object represents a player of a distributed multi-player gaming system, wherein said ghost software object is configured to record actions taken by a user represented by said user object within said distributed multi-player gaming system.

4. (Previously Presented) The method of claim 1, wherein said ghost software object is passive, said method further comprising the step of:

preventing said at least one replicated action by said ghost software object from operationally executing in said grid environment.

5. (Previously Presented) The method of claim 1, further comprising the steps of:

determining a location for logging data that is external to said ghost software object; and,

conveying said at least one replicated and recorded action to said determined location.

6. (Previously Presented) The method of claim 1, further comprising the steps of:

authenticating said ghost software object within said another grid; and,

enabling said ghost software object to automatically enter said another grid based upon said authenticating step.

7. (Previously Presented) The method of claim 1, further comprising the steps of:

generating a new action within said host software object; and,  
replicating said new action within said ghost software object.

8. (Previously Presented) The method of claim 1, further comprising the steps of:  
selecting a plurality of host software objects;  
for each one of the selected plurality of host software objects, repeating said identifying step, said creating step, said associating step and said moving step; and,  
modeling behavior of at least a part of said grid environment using data obtained from a plurality of ghost software objects associated with said selected plurality of host software objects.
9. (Previously Presented) The method of claim 1, further comprising the steps of:  
disassociating said ghost software object from said host software object; and,  
associating said disassociated software object with a different host software object.
10. (Previously Presented) The method of claim 1, further comprising the steps of:  
cloning said associated ghost software object to create another ghost software object, wherein said another ghost software object is a copy of said associated ghost software object; and,  
associating said another ghost software object with a different host software object.
11. (Currently Amended) A computer-readable storage medium in a grid computing environment, comprising computer instructions for logging information delays associated with a statistically relevant number of ghost agents executing ghost software objects consuming limited computing resources in said grid environment retrieved from a ghost

software object ~~assoeiated~~ interacting with a host software object operating within said grid environment,

wherein said host software object is configured to execute actions within said grid environment that induce the delays, wherein said host software object can move among said plurality of grids of said grid environment; and,

wherein a ghost agent is configured to log actions executed by said host software object associated with triggering either a transfer of the ghost software object or a cloning of the ghost software object in view of passive and active interactions consuming the limited computing resources, wherein said ghost agent is further configured to move among said plurality of grids of said grid environment to follow movement of said host software object.

12. (Previously Presented) The computer-readable storage medium of claim 11, wherein said host software object represents a user of said grid environment.

13. (Previously Presented) The computer-readable storage medium of claim 11, wherein said host software object represents an application within said grid environment.

14. (Previously Presented) The computer-readable storage medium of claim 11, wherein said host software object represents a process performed within said grid environment.

15. (Previously Presented) The computer-readable storage medium of claim 11, wherein at least one of the plurality of computing resources comprises a ghost log repository, said repository comprising a data store configured to receive log messages from a plurality of ghost agents.

16. (Previously Presented) The computer-readable storage medium of claim 11, wherein a ghost interface is configured to bind said ghost agent to said host software object.

17. (Currently Amended) A computer-readable storage medium in a grid computing environment, comprising computer instructions for configuring a ghost software object associated with a host software object operating within said grid environment, said ghost software object comprising:

a ghost log configured to record activities of said host software object ;

a ghost identifier configured to identify said ghost software object to components within said grid environment; and,

a ghost controller for determining a statistically relevant number of ghost agents in said grid environment, modeling delays associated with the statistically relevant number of ghost agents executing ghost software objects consuming limited computing resources in the grid environment, and managing interactions between said ghost software object that consume the limited computing resources inducing the delays and components external to said ghost software object by triggering either a transfer of the ghost software object or a cloning of the ghost software object in view of passive and active interactions consuming the limited computing resources, wherein said ghost software object can automatically move within said grid environment responsive to predetermined conditions relating to said host software object.

18. (Currently Amended) The computer-readable storage medium of claim 17, wherein said ghost software object is linked with said host software object in response to a command executed in said grid environment, and the ghost controller either restricts computing resources consumed by ghost agents, thereby freeing up system resources in the grid environment for improved operational performance, or increases the computing resource

consumed by ghost agents, thereby slowing down operational performance in the grid environment in view of passive and active interactions between the ghost software and the host software object.

19. (Previously Presented) The computer-readable storage medium of claim 17, wherein said ghost software object is disassociated with said host software object and linked with a different host software object in response to one or more commands executed in said grid environment.

20. (Currently Amended) A machine-readable storage having stored thereon, a computer program having a plurality of code sections, said code sections executable by a machine for causing the machine to perform the steps of:

determining a statistically relevant number of ghost agents in said grid environment;

modeling delays associated with the statistically relevant number of ghost agents executing ghost software objects consuming limited computing resources in the grid environment;

identifying a host software object operating in one grid;

selecting an existing blank ghost software object within the one grid;

associating said blank ghost software object with said host software object;

in response to said associating of said blank ghost software object, configuring said blank ghost software object to replicate and record at least one action of said host software object;

identifying an interaction between said ghost software object and said host software object, wherein the interaction consumes the limited computing resources and induces the delays;

triggering either a transfer of the ghost software object or a cloning of the ghost software object in view of the interaction and the delays,

moving said host software object from the one grid to another grid; and,

in response to said moving of said host software object, moving said configured ghost software object from said one grid to said another grid.

21. (Original) The machine-readable storage of claim 20, wherein said host software object comprises a user object.

22. (Previously Presented) The machine-readable storage of claim 19, wherein said user object represents a player of a distributed multi-player gaming system, and wherein said configured ghost software object is further configured to record actions taken by a user represented by said user object within said distributed multi-player gaming system.

23. (Previously Presented) The machine-readable storage of claim 20, wherein said configured ghost software object is passive, said machine-readable storage further comprising the step of:

preventing said at least one replicated action by said configured ghost software object from executing.

24. (Previously Presented) The machine-readable storage of claim 20, further comprising the steps of:

determining a location for logging data that is external to said configured ghost software object; and,

conveying said at least one replicated and recorded action to said determined location.

25. (Previously Presented) The machine-readable storage of claim 20, further comprising the steps of:

authenticating said configured ghost software object within said another grid; and,  
enabling said configured ghost software object to automatically enter said another grid based upon said authenticating step.

26. (Previously Presented) The machine-readable storage of claim 20, further comprising the steps of:

generating a new action within said host software object; and,  
replicating said new action within said configured ghost software object.

27. (Previously Presented) The machine-readable storage of claim 20, further comprising the steps of:

selecting a plurality of host software objects;  
for each one of the selected plurality of host software objects, repeating said identifying, said selecting, said associating step and said moving steps; and,  
modeling behavior of at least a part of said grid environment using data obtained from a plurality of configured ghost software objects associated with said selected plurality of host software objects.

28. (Previously Presented) The machine-readable storage of claim 20, further comprising the steps of:

disassociating said configured ghost software object from said host software object; and,  
associating said disassociated configured ghost software object with a different host software object.

29. (Previously Presented) The machine-readable storage of claim 20, further comprising the steps of:

creating a cloned ghost software object, wherein said cloned ghost software object is a copy of said configured ghost software object; and,  
associating said cloned ghost software object with a different host software object.